

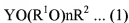
AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior listings and versions of claims in this application.

1. (Previously Presented) An admixture for cement comprising three components of a copolymer (A), an unsaturated (poly)alkylene glycol ether monomer (a) and a non-polymerizable (poly)alkylene glycol (B) having no alkenyl group at ratios of the unsaturated (poly)alkylene glycol ether monomer (a) to the copolymer (A) in a range of 1 to 100% by mass and the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group to the copolymer (A) in a range of 1 to 50% by mass,

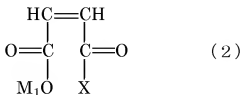
wherein the copolymer (A) contains a constituent unit (I) derived from the unsaturated (poly)alkylene glycol ether monomer (a) and a constituent unit (II) derived from a maleic acid monomer (b) at ratios of the constituent unit (I) and the constituent unit (II) in a range of 1% by mass or more, respectively, in the entire constituent units,

and the unsaturated (poly)alkylene glycol ether monomer (a) is represented by the general formula (1):



wherein Y represents an alkenyl group containing 2 to 4 carbon atoms, R^2 represents a hydrogen atom or a hydrocarbon group containing 1 to 30 carbon atoms, R^1O represents one or more species of oxyalkylene groups containing 2 to 18 carbon atoms, and n represents the average molar number of addition of the oxyalkylene groups and is a number of 1 to 500.

2. (Previously Presented) An admixture for cement according to Claim 1, wherein the maleic acid monomer (b) is represented by the general formula (2):



wherein X represents $-\text{OM}_2$ or $-\text{Z}-(\text{R}^3\text{O})_k\text{R}^4$, M_1 and M_2 may be the same or different and each represents a hydrogen atom, a monovalent metal, a divalent metal, an ammonium group or an

organic ammonium group, -Z- represents -O- or -NH-, R^3O represents one or more species of oxyalkylene groups containing 2 to 18 carbon atoms, R^4 represents a hydrogen atom, an alkyl group containing 1 to 30 carbon atoms, a phenyl group, an aminoalkyl group, an alkylphenyl group or a hydroxyalkyl group (the number of carbon atoms of the alkyl groups in the aminoalkyl group, the alkylphenyl group and the hydroxyalkyl group is 1 to 30), q represents the average molar number of addition of the oxyalkylene groups and is a number of 0 to 500, provided that the compound includes those having acid anhydride group (-CO-O-CO-) formed by bond of oxygen bonded to M_1 with carbon bonded to X, in which M_1 and X do not exist.

3. (Previously Presented) An admixture for cement according to Claim 1, wherein the oxyalkylene group composing the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is one or more species of oxyalkylene groups containing 2 to 18 carbon atoms, and the terminal group of the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is a hydrogen atom, an alkyl group or an (alkyl)phenyl group containing 1 to 30 carbon atoms.

4. (Previously Presented) An admixture for cement according to Claim 2, wherein the oxyalkylene group composing the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is one or more species of oxyalkylene groups containing 2 to 18 carbon atoms, and the terminal group of the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is a hydrogen atom, an alkyl group or an (alkyl)phenyl group containing 1 to 30 carbon atoms.

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13. (Previously Presented) A cement composition comprising the admixture for cement according to Claim 1, cement and water.

14. (Previously Presented) A cement composition comprising the admixture for cement according to Claim 2, cement and water.

15. (Previously Presented) A method for producing a cement hardened product, comprising:

applying a cement composition comprising the admixture for cement according to Claim 1 containing a setting accelerator (C1), cement and water; and
hardening the cement composition at a temperature condition of 30°C or less.

16. (Previously Presented) A method for producing a cement hardened product, comprising:

applying a cement composition comprising the admixture for cement according to Claim 2 containing a setting accelerator (C1), cement and water; and
hardening the cement composition at a temperature condition of 30°C or less.

17. (Previously Presented) A method for applying a cement composition comprising:
applying the cement composition comprising the admixture for cement according to Claim 1 containing at least one compound (C2) selected from the group consisting of oxycarboxylic acid, its salt, saccharide, and sugar alcohol, cement and water at a temperature condition of 20°C or more.

18. (Previously Presented) A method for applying a cement composition comprising:
applying the cement composition comprising the admixture for cement according to Claim 2 containing at least one compound (C2) selected from the group consisting of oxycarboxylic acid, its salt, saccharide, and sugar alcohol, cement and water at a temperature condition of 20°C or more.

19 (Previously Presented) An admixture for cement according to Claim 1, wherein the oxyalkylene group composing the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is one or more species of oxyalkylene groups containing 2 to 18 carbon atoms, and the oxyalkylene group comprises an oxethylene group accounting for at least 50 mole percent, and

the terminal group of the non-polymerizable (poly)alkylene glycol (B) having no alkenyl

group is a hydrogen atom or an alkyl group containing 1 to 4 carbon atoms.

20. (Previously Presented) An admixture for cement according to Claim 2, wherein the oxyalkylene group composing the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is one or more species of oxyalkylene groups containing 2 to 18 carbon atoms, and the oxyalkylene group comprises an oxyethylene group accounting for at least 50 mole percent, and

the terminal group of the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is a hydrogen atom or an alkyl group containing 1 to 4 carbon atoms.

21. (Previously Presented) An admixture for cement according to Claim 19, wherein the oxyalkylene group composing the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group comprises an oxyethylene group accounting for at least 90 mole percent, and

the terminal group of the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is a hydrogen atom.

22. (Previously Presented) An admixture for cement according to Claim 20, wherein the oxyalkylene group composing the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group comprises an oxyethylene group accounting for at least 90 mole percent, and

the terminal group of the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is a hydrogen atom.

23. (Previously Presented) An admixture for cement according to Claim 1, wherein R^2 in the formula (1) is a hydrogen atom.

24. (Previously Presented) An admixture for cement according to Claim 2, wherein R^2 in the formula (1) is a hydrogen atom.

25. (Previously Presented) An admixture for cement according to Claim 1, further comprising at least one additive selected from the group consisting of (C1) a setting accelerator, (C2) at least one compound selected from oxycarboxylic acid, its salt, saccharide, and sugar alcohol, and (C3) a sulfonic acid dispersant containing a sulfonic acid group in the molecule.

26. (Previously Presented) An admixture for cement according to Claim 2, further comprising at least one additive selected from the group consisting of (C1) a setting accelerator, (C2) at least one compound selected from oxycarboxylic acid, its salt, saccharide, and sugar alcohol, and (C3) a sulfonic acid dispersant containing a sulfonic acid group in the molecule.

27. (Previously Presented) An admixture for cement according to Claim 3, further comprising at least one additive selected from the group consisting of (C1) a setting accelerator, (C2) at least one compound selected from oxycarboxylic acid, its salt, saccharide, and sugar alcohol, and (C3) a sulfonic acid dispersant containing a sulfonic acid group in the molecule.

28. (Previously Presented) An admixture for cement according to Claim 4, further comprising at least one additive selected from the group consisting of (C1) a setting accelerator, (C2) at least one compound selected from oxycarboxylic acid, its salt, saccharide, and sugar alcohol, and (C3) a sulfonic acid dispersant containing a sulfonic acid group in the molecule.

29. (Previously Presented) An admixture for cement according to Claim 25, wherein the sulfonic acid dispersant (C3) containing a sulfonic acid group in the molecule is a compound having an aromatic group.

30. (Previously Presented) An admixture for cement according to Claim 26,

wherein the sulfonic acid dispersant (C3) containing a sulfonic acid group in the molecule is a compound having an aromatic group.

31. (Previously Presented) An admixture for cement according to Claim 27, wherein the sulfonic acid dispersant (C3) containing a sulfonic acid group in the molecule is a compound having an aromatic group.

32. (Previously Presented) An admixture for cement according to Claim 28, wherein the sulfonic acid dispersant (C3) containing a sulfonic acid group in the molecule is a compound having an aromatic group.

33. (Previously Presented) An admixture for cement according to Claim 19, further comprising at least one additive selected from the group consisting of (C1) a setting accelerator, (C2) at least one compound selected from oxycarboxylic acid, its salt, saccharide, and sugar alcohol, and (C3) a sulfonic acid dispersant containing a sulfonic acid group in the molecule.

34. (Previously Presented) An admixture for cement according to Claim 20, further comprising at least one additive selected from the group consisting of (C1) a setting accelerator, (C2) at least one compound selected from oxycarboxylic acid, its salt, saccharide, and sugar alcohol, and (C3) a sulfonic acid dispersant containing a sulfonic acid group in the molecule.

35. (Previously Presented) An admixture for cement according to Claim 33, wherein the sulfonic acid dispersant (C3) containing a sulfonic acid group in the molecule is a compound having an aromatic group.

36. (Previously Presented) An admixture for cement according to Claim 34, wherein the sulfonic acid dispersant (C3) containing a sulfonic acid group in the molecule is a compound having an aromatic group.

37. (New) The cement admixture according to Claim 1, wherein the content of the unsaturated (poly)alkylene glycol ether monomer (a) is 3 to 90% by mass relative to 100% by mass of the copolymer (A), and the content of the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is 2 to 50% by mass relative to 100% by mass of the copolymer (A).

38. (New) The cement admixture according to Claim 19, wherein the content of the unsaturated (poly)alkylene glycol ether monomer (a) is 3 to 90% by mass relative to 100% by mass of the copolymer (A), and the content of the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is 2 to 50% by mass relative to 100% by mass of the copolymer (A).

39. (New) The cement admixture according to Claim 23, wherein the content of the unsaturated (poly)alkylene glycol ether monomer (a) is 3 to 90% by mass relative to 100% by mass of the copolymer (A), and the content of the non-polymerizable (poly)alkylene glycol (B) having no alkenyl group is 2 to 50% by mass relative to 100% by mass of the copolymer (A).